

Date: Sat, 5 Feb 94 04:30:37 PST
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: Bulk
Subject: Ham-Space Digest V94 #20
To: Ham-Space

Ham-Space Digest Sat, 5 Feb 94 Volume 94 : Issue 20

Today's Topics:

 * SpaceNews 07-Feb-94 *
 Daily IPS Report - 1 Feb 94
 Sat. Comm. WL7IR ??
 STS-60 / SAREX Freqs?
 Two-Line Orbital Element Set: Space Shuttle

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 4 Feb 1994 10:55:23 MST
From: agate!howland.reston.ans.net!math.ohio-state.edu!cyber2.cyberstore.ca!
nntp.cs.ubc.ca!alberta!ve6mgs!usenet@network.ucsd.edu
Subject: * SpaceNews 07-Feb-94 *
To: ham-space@ucsd.edu

SB NEWS @ AMSAT \$SPC0207
* SpaceNews 07-Feb-94 *

BID: \$SPC0207

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SpaceNews
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MONDAY FEBRUARY 7, 1994

SpaceNews originates at KD2BD in Wall Township, New Jersey, USA. It is published every week and is made available for unlimited distribution.

* STS-60 SAREX MISSION BEGINS *

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The Space Shuttle Discovery made a spectacular, historic, on-time liftoff at 12:30 UTC on 03-Feb-94 from the Kennedy Space Center. Discovery's launch marks the first joint U.S.-Russian Space Shuttle Flight. This will be the first of several joint missions planned in preparation for the development of the international Space Station. Cosmonaut Sergei Krikalev, U5MIR, was one of the six crew members on board this Shuttle flight. His fellow American crew mates include Commander Charlie Bolden, KE4IQB, Pilot Ken Reightler, and Mission Specialists Jan Davis, Ron Sega, KC5ETH, and Franklin Chang-Diaz.

The primary payloads on-board Discovery are the Wake Shield Facility, which will be deployed and retrieved during the flight and the Spacehab facility. Of particular interest to Radio Amateurs is the Shuttle Amateur Radio Experiment (SAREX) secondary payload.

The following Keplerian Elements for STS-60 are provided by Ron Parise, WA4SIR, at the Goddard Space Flight Center:

STS-60

1	22977U	94006A	94	35.13981770	0.00000202	00000-0	58718-5	0	37
2	22977	56.9857	213.2731	0008535	263.0773	96.9324	15.72145611		115

Satellite: STS-60

Catalog number: 22977

Epoch time: 94035.13981770 (04 FEB 94 03:21:20.25 UTC)

Element set: GSFC-003

Inclination: 56.9857 deg

RA of node: 213.2731 deg Space Shuttle Flight STS-60

Eccentricity: 0.0008535 Keplerian Elements

Arg of perigee: 263.0773 deg

Mean anomaly: 96.9324 deg

Mean motion: 15.72145611 rev/day Semi-major Axis: 6730.8981 Km

Decay rate: 0.20E-05 rev/day^2 Apogee Alt: 358.25 Km

Epoch rev: 11 Perigee Alt: 346.77 Km

NOTE - This element set is based on NORAD element set # 003.

The spacecraft has been propagated to the next ascending node, and the orbit number has been adjusted to bring it into agreement with the NASA numbering convention.

[Info via Frank H. Bauer, KA3HDO of the SAREX Working Group]

★ AMSAT NET

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To all interested satellite users, experiments are underway that uplink the Houston Area Amsat Net, heard locally on the 147.100 MHz FM repeater, on Galaxy 3, Channel 17, (Shop-At-Home Channel) on a 5.8 MHz subcarrier. This net is carried in real-time on Tuesday evening, from approximately 10:00 PM Local Time (CST) until completion at approximately 10:30 - 10:45 PM. This is an experiment but could be continued on a regular basis if interest is sufficient. Please send reports of your reception and your comments to:

davidsonc@tcd.jsc.nasa.gov via Internet, or

you may call (713) 483-0078 during business hours, or during the uplink period at (713) 595-2393 and ask for Craig Davidson, WD5BDX.

★ NEWS FROM JAPAN ★

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NASDA's first H-II rocket was launched at 07:20 (JST=UTC+9h) on 04-Feb-94. The H-II is designed to serve as NASDA's main space transportation system in the 1990's to meet the demand for larger satellite launches at a lower cost and still maintain a high degree of reliability. It is capable of sending a single two ton class payload or multiple payload totaling two tons onto geostationary orbit. The H-II is a two-stage rocket equipped with two large solid rocket boosters (SRBs) on the first stage for thrust augmentation.

Principal specifications of the H-II:

Overall length: 50

Diameter: 4

Total mass: 260t (payload not included)

Guidance system: Strapped-down inertial guidance system

Shape: Blunt-cone shape, Nose radius 1.35m, Diameter 3.40m, Height 1.46m

Weight: Approx. 865kg at launch, Approx. 761kg at re-entry

[Info via Yoshiro Yamada]

★ MIR MUSIC REQUEST ★

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Ongoing contacts on 145.550 MHz are taking place between the cosmonauts of the Russian Mir space station and a few hams in Israel, mainly 4X4LF Shlomo

on Packet, and Mark 4Z4KX, a native-Russian speaker, on voice. When Mir is overhead, one may often hear Mark and one of the cosmonauts chatting away.

Followers of Israeli popular music know well the name Ofra Haza, a singer who has made a name for herself, especially in Europe. Nonetheless, Mark 4Z4KX was rather surprised when Cosmonaut Alexander Serebrov, R0MIR, on one of his overhead QSO's with him, asked Mark to send greetings to Ofra! Alexander related that he's a fan of hers, and asked Mark to see if he could get a cassette of hers for him.

No problem! As the ham connection goes, 4Z4XC Yair Haza is Ofra's brother, and promised to procure her latest CD, which will have to be transcribed to cassette, as all they have on board the Mir is a cassette machine.

[Info via Shlomo, 4X4LF@4X4LI.ISR.MDLE]

* FO-20 OPERATION SCHEDULE *

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The FO-20 operation schedule is follows. Analog transponder and digital transponder will be ON for a week respectively as they were since last December.

Analog mode:

09-Feb-94 07:15 UTC -to- 16-Feb-94 07:40 UTC
23-Feb-94 08:05 UTC -to- 02-Mar-94 06:40 UTC
09-Mar-94 07:05 UTC -to- 16-Mar-94 07:30 UTC
23-Mar-94 07:52 UTC -to- 30-Mar-94 08:15 UTC

Digital mode:

Unless otherwise noted above.

[Info via Kazu Sakamoto, JJ1WTK]

* THANKS! *

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Thanks to all those who sent messages of appreciation regarding SpaceNews, especially:

9V1X0 GM2ASU LX2LA N2JUX VK5THA N9VEM KF0QS

* FEEDBACK/INPUT WELCOMED *

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Mail to SpaceNews should be directed to the editor (John, KD2BD) via any of the following paths:

FAX : 1-908-747-7107
PACKET : KD2BD @ N2KZH.NJ.USA.NA
INTERNET : kd2bd@ka2qhd.ocpt.ccur.com -or- kd2bd@amsat.org

MAIL : John A. Magliacane, KD2BD
Department of Engineering and Technology
Advanced Technology Center
Brookdale Community College
Lincroft, New Jersey 07738
U.S.A.

<<= SpaceNews: The first amateur newsletter read in space! -=>>

/EX

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John A. Magliacane, KD2BD * /\ * Voice : 1-908-224-2948
Advanced Technology Center |/\| Packet : KD2BD @ N2KZH.NJ.USA.NA
Brookdale Community College |/\| Internet: kd2bd@ka2qhd.ocpt.ccur.com
Lincroft, NJ 07738 * /\ * Morse : -. -.. ..--- -..

Date: 1 Feb 94 22:52:49 GMT
From: agate!msuinfo!harbinger.cc.monash.edu.au!bruce.cs.monash.edu.au!merlin!
mel.dit.csiro.au!its.csiro.au!dmssyd.syd.dms.CSIRO.AU!wabbit.cc.uow.edu.au!
news.ci.com.au!@@library.ucla.edu
Subject: Daily IPS Report - 1 Feb 94
To: ham-space@ucsd.edu

IPS RADIO AND SPACE SERVICES AUSTRALIA
Daily Solar And Geophysical Report
Issued at 2330 UT 31 January 1994
Summary for 31 January and Forecast up to 3 February
No warning is current.

1A. SOLAR SUMMARY
Activity: Very Low

Flares: None

Observed 10.7 cm flux/Equivalent Sunspot Number : 098/045

1B. SOLAR FORECAST

	01 February	02 February	03 February
Activity	Low	Low	Low

Fadeouts None Expected None Expected None Expected

Forecast 10.7 cm flux/Equivalent Sunspot Number : 100/048

1C. SOLAR COMMENT

None.

2A. MAGNETIC SUMMARY

Geomagnetic field at Learmonth : Quiet

Estimated Indices :	A	K	Observed A Index 30 January
Learmonth	07	2222 2222	
Fredericksburg	07		09
Planetary	08		09

2B. MAGNETIC FORECAST

DATE	Ap	CONDITIONS
01 Feb	08	Quiet
02 Feb	05	Quiet
03 Feb	05	Quiet

2C. MAGNETIC COMMENT

None.

3A. GLOBAL HF PROPAGATION SUMMARY

	LATITUDE BAND		
DATE	LOW	MIDDLE	HIGH
31 Jan	normal	normal	normal

PCA Event : None.

3B. GLOBAL HF PROPAGATION FORECAST

	LATITUDE BAND		
DATE	LOW	MIDDLE	HIGH
01 Feb	Normal	Normal	Fair
02 Feb	Normal	Normal	Normal
03 Feb	Normal	Normal	Normal

3C. GLOBAL HF PROPAGATION COMMENT

NONE.

4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY

MUFs at Sydney were mostly 15-30% above monthly predicted values.

T index: 82

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE	T-index	MUFs
01 Feb	70	Near predicted to 30% enhanced
02 Feb	70	Near predicted to 30% enhanced
03 Feb	70	Near predicted to 30% enhanced

Predicted Monthly T Index for February is 30.

4C. AUSTRALIAN REGION COMMENT

Sporadic E may affect F layer communications at times.

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Dave Horsfall (VK2KFU)	VK2KFU @ VK20P.NSW.AUS.OC	PGP 2.3
dave@esi.COM.AU	...munhari!esi.COM.AU!dave	available

Date: 4 Feb 1994 02:11:10 GMT
 From: agate!howland.reston.ans.net!vixen.cso.uiuc.edu!uwm.edu!cs.utexas.edu!
 bga.com!vern.bga.com!kbrune@network.ucsd.edu
 Subject: Sat. Comm. WL7IR ??
 To: ham-space@ucsd.edu

Hello, I have been interested in Sat. Comm. but have never looked into it.
 What is a good Ham book to start with? Are the Ham Sat's able to store and
 forward packet radio? are there any geosynch sats available? how about
 frequencies about above 1 GHz, any sats in that area of the spectrum? yaya I
 know a lot of questions... thanks WL7IR

Date: Fri, 4 Feb 1994 22:50:08 GMT
 From: agate!howland.reston.ans.net!europa.eng.gtefsd.com!library.ucla.edu!
 news.ucdavis.edu!chip.ucdavis.edu!ez006683@network.ucsd.edu
 Subject: STS-60 / SAREX Freqs?
 To: ham-space@ucsd.edu

Bill VanRemmen (BILLY@urhep.pas.rochester.edu) wrote:

: Could someone please post the SAREX Freqs? Is it on 145.55? Somewhere else?

Voice downlink: 145.55 MHz
 Voice uplink: 144.91Mhz .93 .95 .97 144.99MHz
 Packet Downlink:145.55MHz
 Packet uplink: 144.49MHz

cheers,
 Dan

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* Daniel D. Todd          |Packet: KC6UUD@wKE6LW.#nocal.ca.usa          *
*                        Internet: ddtodd@ucdavis.|edu                  *
*                        Snail Mail: 1750 Hanover #102                  *
*                        Davis CA 95616                                *
*-----*
*      I do not speak for the University of California....          *
*      and it sure as hell doesn't speak for me!!                  *
*-----*

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Date: Fri, 4 Feb 1994 14:57:31 MST
From: agate!howland.reston.ans.net!math.ohio-state.edu!cyber2.cyberstore.ca!
nntp.cs.ubc.ca!alberta!ve6mgs!usenet@network.ucsd.edu
Subject: Two-Line Orbital Element Set: Space Shuttle
To: ham-space@ucsd.edu

The most current orbital elements from the NORAD two-line element sets are carried on the Celestial BBS, (513) *253-9767*, and are updated daily (when possible). Documentation and tracking software are also available on this system. As a service to the satellite user community, the most current elements for the current shuttle mission are provided below. The Celestial BBS may be accessed 24 hours/day at 300, 1200, 2400, 4800, or 9600 bps using 8 data bits, 1 stop bit, no parity.

Element sets (also updated daily), shuttle elements, and some documentation and software are also available via anonymous ftp from archive.afit.af.mil (129.92.1.66) in the directory pub/space.

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STS 60
1 22977U 94006A    94035.04166667 .00000202 00000-0 58718-5 0      37
2 22977  56.9857 213.7143 0008536 262.8823 261.4244 15.72145451      89

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Dr TS Kelso Assistant Professor of Space Operations
tkelso@afit.af.mil Air Force Institute of Technology

End of Ham-Space Digest V94 #20
